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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/073,825 | 05/07/1998 | SUSUMU TSUJIMOTO | 0004634P | 1276 |

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EXAMINER

PETERSON, KENNETH E

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 3724 | |

DATE MAILED: 01/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

HCF

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/073,825 | TSUJIMOTO, SUSUMU | |
| | Examiner | Art Unit | |
| | Kenneth E Peterson | 3724 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
 THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 20 December 2002.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 15 and 17-19 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 15 and 17-19 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1.) Certified copies of the priority documents have been received.

2.) Certified copies of the priority documents have been received in Application No. _____ .

3.) Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

| | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ . | 6) <input type="checkbox"/> Other: _____ . |

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1. Claims 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 18, Applicant claims that the teeth have a relief surface that is perpendicular to the moving direction. A relief surface of a tooth is the back surface opposite the cutting face (or rake face). In Applicant's specification, there does not appear to be any disclosure of a perpendicular relief surface. The only discussion of relief surfaces comes with the embodiment of figures 3a and 3b, which appear to be roughly 30 degrees from the moving direction. The embodiment of figures 6a and 6b appear to be within 5 degrees of being perpendicular to the moving direction, but the specification does not discuss these relief surfaces. For this action, the claims will be interpreted to mean that the teeth have a relief surface that is *oblique* to the moving direction, in order to be in agreement with the specification.

In claim 19, there is claimed a tip portion that is straight and parallel to the bending line. However, none of the species have this feature. The closest species is that of figures 6a and 6b, which has a straight portion *recessed* from the tooth tip. Because of this disparity, the boundaries of this claim is unclear.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 15 and 18, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Armstrong et al. '280, who shows a saw in figure 3 having all of the recited limitations including four alternatingly offset teeth (L1,R1,L2,R2), a collinear bend line, inline cutting tips, different pitches, and gullets lower than the bend line.

4. Claims 15 and 18, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Clark '967, who shows a saw in figure 3 having all of the recited limitations including four alternatingly offset teeth (14,15,16,17), a collinear bend line (see figure 4), inline cutting tips (see figure 4), different pitches, and gullets lower than the bend line (see figure 4). Note that Applicant's claims do not recite that *all* gullet bottoms must be lower than the bending line.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark '967 or Armstrong et al. '280.

Looking at Armstrong's figure 3 or Clark's figure 2, it appears that the length of the bending line is same for each tooth. However, neither Armstrong nor Clark explicitly

say as much. If it were interpreted that the length of bending may be slightly different for each tooth, the examiner notes that there is no criticality in the length of the bending lines being exactly the same for each tooth. The use of bending lines of the exact same length compared to bending lines of slightly varying lengths solves no stated problem and would have been an obvious matter of design choice within the skill of the art. In re Kuhle, 188 USPQ 7.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over either of Clark '967 or Armstrong et al. '280, as set forth in the 102 or 103 rejection above, and further in view of Kolesh.

The gullet bottoms of Armstrong and Clark are rounded. However, Kolesh and many others show that it is well known for the gullet bottom to be flat with curves rising up to meet the teeth on either side. The radius of curvature of each curve appears to similar if not the same. It would have been obvious to one of ordinary skill in the art to have modified either Clark or Armstrong by making the gullet bottom flat, since both round and flat gullet bottoms perform the same function of separating the teeth.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over either of Clark '967 or Armstrong et al. '280, as set forth in the 102 or 103 rejection above, and further in view of Battersby.

Neither Clark's nor Armstrong's teeth have a straight section near the tip that is parallel to the bending line. However, this is common as evidenced by Battersby (25).

It would have been obvious to one of ordinary skill in the art to have added a straight section near the tip of Clark or Armstrong that is parallel to the bending line, as taught by Battersby, in order to set a depth of cut for the cutting edge and also provide structural back-up for the cutting edge.

9. Applicant's arguments have been fully considered but they are not persuasive.

Applicant notes that Armstrong's figures 1,2,11 and 12 have teeth with bending lines of different lengths. This point is well taken, but note that Armstrong's figure 3, does show bending lines of equal length.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ken Peterson whose telephone number is 703-308-2186. The examiner can normally be reached on Monday thru Thursday between 7am and 4pm. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 703-308-1082.

In lieu of mailing, it is encouraged that all formal responses be faxed to 703-872-9302. Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is 703-308-1148.

kp

January 22, 2003



KENNETH E. PETERSON
PRIMARY EXAMINER